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Elena Wexler–Kreindler (1931–1992)

In Memoriam

Elena Wexler-Kreindler was born in Braila, Romania, on 15 October 1931. After graduating from high school in Bucharest in 1951, she obtained a fellowship from the Romanian Department of Education and spent the next four years studying mathematics at the University of Sverdlovsk (USSR). In 1955 she completed a M.Sc. thesis on *Multiplicative Lattices with Additive Basis* with P.G. Kantorowitch as supervisor.

Back home Elena Wexler-Kreindler joined the mathematics faculty at the Polytechnic Institute in Bucharest first as an instructor, then as an assistant professor. During this period, in spite of heavy teaching duties, she also pursued an intense research activity in the field of functional analysis under the guidance of Gr.C. Moisil, which eventually led to her Ph.D. thesis in mathematics on the *Theory of Pseudolinear Operators*. In 1969 Elena Wexler-Kreindler was promoted to associate professor at the same Institute, a position which she held until she left Romania in 1972 with her husband Dinu Wexler, also a mathematician, to settle in France.

At that time, job opportunities in Paris were already were scarce and Elena Wexler-Kreindler had to start up a second academic career at the untenured assistant professorship level. She finally got tenure from the University *Pierre & Marie Curie* (Paris VI) and was promoted to associate professor in 1989. One year later she was granted *Habilitation* in mathematics, a title which in the French educational system allows one to supervise graduate research.

Her own research interests in Paris focused on some difficult problems in modern algebra, such as Ore's extensions, the theory of filtered rings, or algebraic microlocalisation. She participated actively in both Mrs. M.-P. Malliavin's regular algebra seminar and in the Lesieur-Renault seminar on noncommutative algebra. Most of these results were also presented in international workshops and conferences, and published in various scientific journals. They add new facets to her mathematical research after earlier work in Romania on the theory of multiplicative lattices, the properties of differential operators in unitary modules, and objects in abelian categories.

Last but not least Elena Wexler-Kreindler was an outstanding lecturer and had a great passion for teaching both graduate and undergraduate mathematics. She was always generous towards students with her time and devoted herself to making even the harshest matter accessible to the audience. Her lecture notes and collections of solved problems will remain a model of clarity and self-consistency.

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All her friends, colleagues, and students were impressed by her intelligence, energy, modesty, and courage. They were deeply affected by her untimely death in August 1992, three years after that of her husband.

List of publications

[1] On the principal ideals of a lattice, Bul. Inst. Politehnic 22 (1960) 19–24 (in Russian).
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[4] Le module des combinaisons différentielles linéaires à coefficients variables, Rev. Roum. Math. Pures Appl. 11 (1966) 847–864.
[5] Remarques sur le théorème des facteurs invariants, Bull. Soc. Math. Roum. 11 (1967) 181–186.
[6] Opérateurs pseudo-linéaires dans les modules unitaires, Rev. Roum. Math. Pures Appl. 13 (1968) 201–234.
[7] Sur les objets libres dans une catégorie abélienne avec objets principaux, C.R. Acad. Sci. Paris Sér. A 266 (1968) 268–70.
[8] Objets principaux dans les catégories abéliennes, Rev. Roum. Math. Pures Appl. 13 (1968) 471–495.
[9] Remarques sur les familles libres de sous-objets, Rev. Roum. Math. Pures Appl. 14 (1969) 367–370.
[10] Sur la notion de sous-objet de torsion dans une catégorie abélienne, Bull. Soc. Math. Roum. 13 (1969) 331–342.
[11] Sur une classification des extensions de Ore, C.R. Acad. Sci. Paris Sér. A 282 (1976) 1331–1333.
[12] Propriétés de transfert des extensions de Ore, in: Lecture Notes in Mathematics, Vol. 641 (Springer, Berlin, 1978) 235–251.
[13] Séries formelles tordues et conditions de chaînes, in: Lecture Notes in Mathematics, Vol. 740 (Springer, Berlin, 1979) 99–119.
[14] Sur l'anneau des séries formelles tordues, C.R. Acad. Sci. Paris Sér. A 286 (1978) 367–370.
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[17] Skew power series rings and some homological properties of filtered rings, in: Lecture Notes in Mathematics, Vol. 825, (Springer, Berlin, 1980) 198–209.
[18] Anneaux filtrés complets et suites spectrales associées, in: Lecture Notes in Mathematics, Vol. 924, (Springer, Berlin, 1981) 442–461.
[19] Algèbre Commutative – Applications en Géométrie et Théorie des Nombres (Masson, Paris, 1986) (with M.-J. Bertin).
[20] Remarques sur la localisation des anneaux filtrés, Comm. Algebra 14 (1986) 1597–1614.
[21] Microlocalisation, platitude et théorie de torsion, Comm. Algebra 16 (1988) 1813–1852.
[22] Zariski rings and flatness of completion, J. Algebra 138 (1991) 327–339 (with F. van Oystaeyen and Li Huishi).
[23] Sur une localisation presque classique d'un anneau filtré, Bull. Soc. Math. Belg. Sér. A 43 (1991) 185–204.
[24] Définition alternative du microlocalisé algébrique (unpublished).